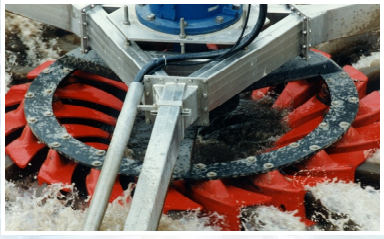
“One Tank Reactor”-Plant of Village TETTAU (Germany)

- Start-up date: August 1993
- Connection load: designed for 2,000 p.e.
- Process target: BOD_5: 120.0 kg/d
  Daily sewage: 500.0 m^3/d
- Sewer concept: combined system (rainwater and sewage)
- Effluent results: BOD_5: < 8 mg/l
  COD: < 20 mg/l
  NH_4-N: < 2 mg/l
  P_{total}: < 3 mg/l
- Plant concept: extended aeration (sequenced batch technology), simultaneous sludge stabilization, nitrification, denitrification, organic sludge age > 20 days

- Technical features:
  - two parallel operating SBR-systems (computer-controlled) including sludge storage tank for the excess waste sludge (storage capacity for 180 days)
  - pretreatment of the incoming sewage by a compact station including fine screen and sand trap; free flow discharge of the pretreated sewage into the two reactors
  - alternating fill-up of the two reactors (automatically operated)
  - aeration and oxygen supply by use of a floating surface aerator (type BSK 2000); speed control according to the oxygen requirement by frequency controllers
  - discharge of the purified wastewater by use of two decanting pumps in each reactor; the pressure pipes end approx. 1 km away in the river “Schwarze Elster”
  - realization of the reactors and the sludge storage tank by a compact waterproof tank construction, being combined to one common structure; the two reactors are completely covered with a house that includes the operation building



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